



# Principles of Environmental Impact Assessment

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[www.EnvironmentalCounsel.Asia](http://www.EnvironmentalCounsel.Asia)



# Union of Myanmar

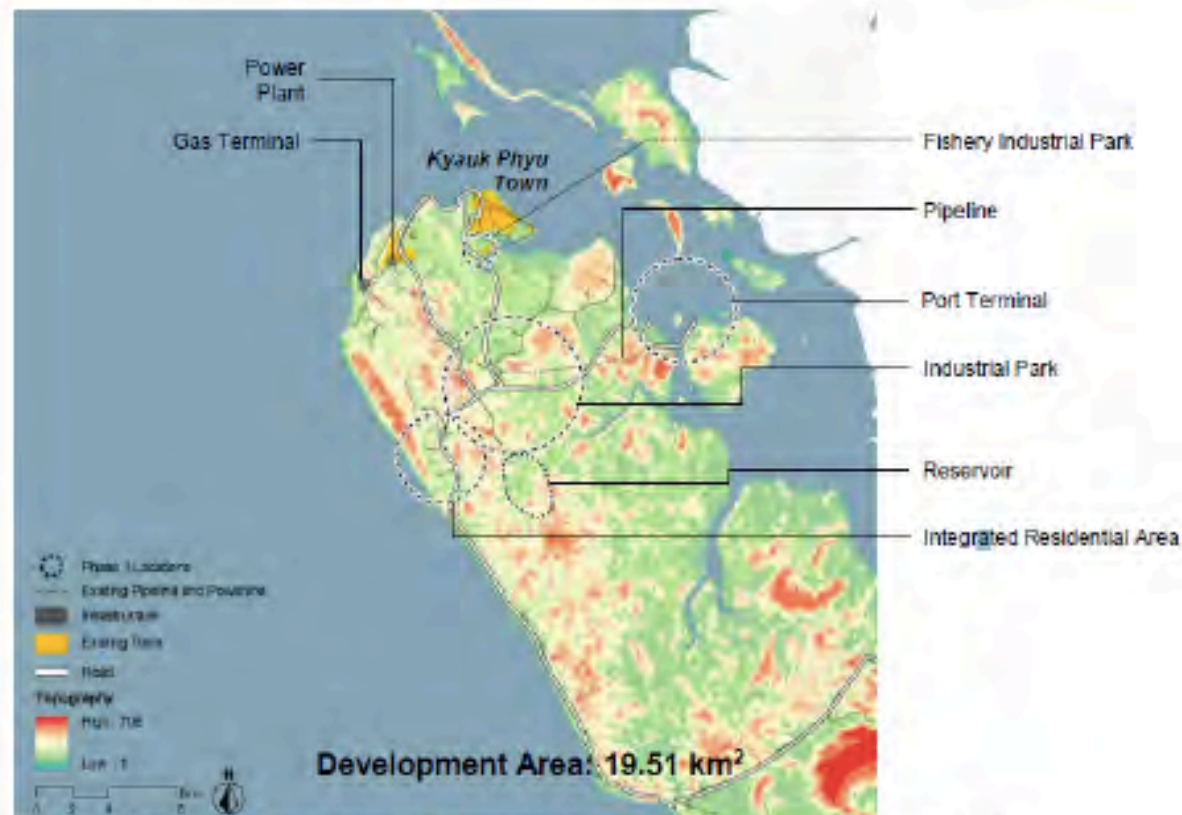


Environmental Protection Law 2012

Foreign Investment Law 2012 and  
Rules require ESIA

- Environmental Protection Rules 2014, in force 5 June 2014.
- Chapter VII – Environmental Quality Standards
- Chapter XI – EIA
- Environmental Impact Assessment Procedure December 2015
- Development of Draft Environmental Quality Standards December 2015

## 1.2 Background – The Master Plan



Illustrated plan is for marketing purpose only. Detailed Master Plan will be available in the EOI document.

*Kyauk Phyu Special Economic Zone Development Plan (Tender No. KPSEZ-06/1931)*



# Future infrastructure development

- To achieve ASEAN vision of sustainable development, EIA can be used to promote social inclusion, environmental protection and economic growth.
- Plans for Regional Growth in Rakhine State includes Kyauk Phyu SEZ with Chinese investment.

# Key aim of Environmental Impact Assessment (EIA)

- The key aim of EIA is to achieve sustainable development and create sustainable societies.  
*Environmental and social impact assessment is a process of estimating and assessing impacts on the environment by development projects and activities prior to decisions. It also identifies the methods and standards for preventing, mitigating and reducing such potential impacts on the environment.*











# Key features of Environmental Impact Assessment (EIA)

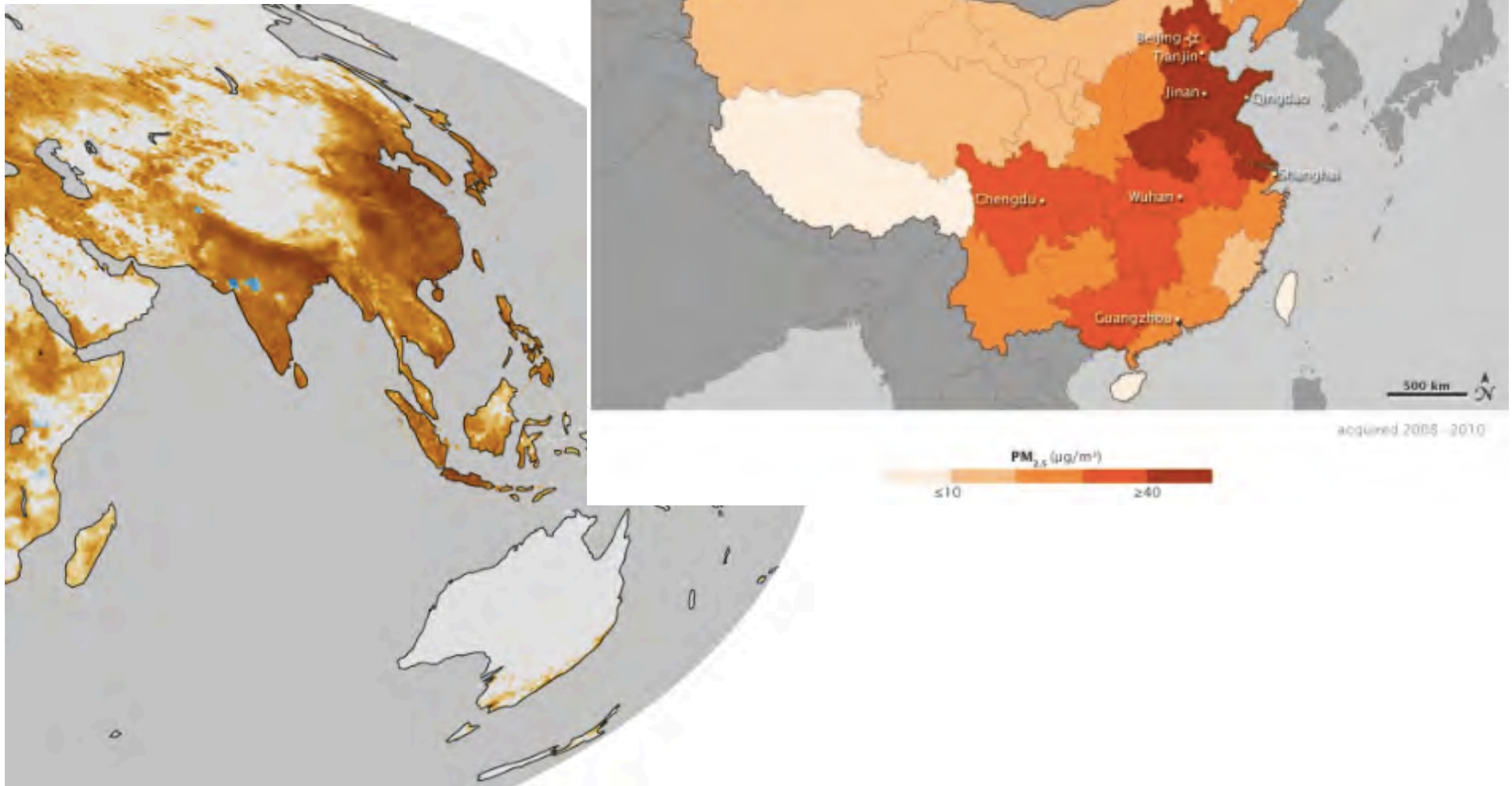
- It allows public participation at each stage in the process to guide the decision-making
- It provides an Environmental Management Plan to prevent, mitigate, or reduce possible impact.
- It allows the decision-maker to make the final determination based on the best available information in accordance with accepted legal principles promoting sustainable development







# nasa.org death from particulates





25% of arable land in PRC is polluted.  
Cadmium (Cd), Nickel (Ni), Arsenic (Ar)



## Looking for scrap metal in Tianjin





# Red dyed river Jian River Luoyang







# Stream flowing in to Manila Bay.





# Polluted beach impact on tourism, fisheries and health





# 7 key principles to effective EIAs



1. Legally established, clear and effective process
2. Proponent bears cost of application and assessment
3. Genuine and meaningful public participation at all stages of the process
4. Access to information by civil society and government
5. Best available information
6. Open and evidence-based decision making
7. Effective monitoring, compliance and enforcement

# Mechanisms to achieve principles of EIA

- Reliance on participatory approaches
- Precautionary principle
- Intergenerational equity
- Conservation of biological diversity and ecological integrity
- Improved valuation, pricing and incentive mechanisms



# Tools to achieve principles of EIA

- Reliance on participatory approaches
- **Precautionary principle**
- Intergenerational equity
- **Conservation of biological diversity and ecological integrity**
- Improved valuation, pricing and incentive mechanisms – **Polluter Pays Principle**

# Tools to achieve principles of EIA

- **Precautionary principle -**

where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

- i. careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- ii. an assessment of the risk-weighted consequences of various options.



# Tools to achieve principles of EIA

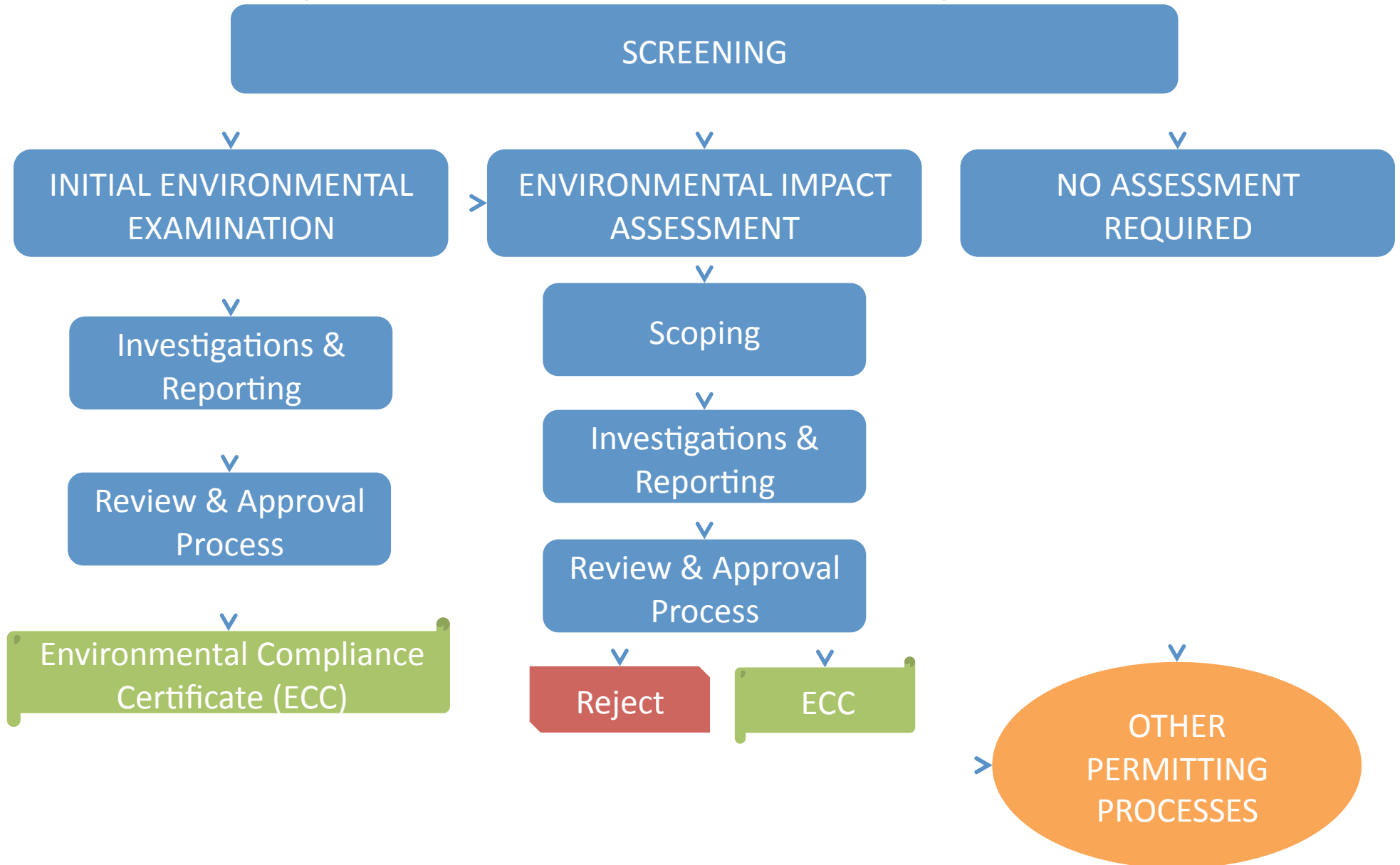
- **Intergenerational equity -**  
the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- **Conservation of biological diversity and ecological integrity -**  
conservation of biological diversity and ecological integrity should be a fundamental consideration.

# Tools to achieve principles of EIA

- **Improved valuation, pricing and incentive mechanisms –**
  - Environmental factors should be included in the valuation of assets and services.
  - Polluter pays i.e. those who generate pollution and waste should bear the cost of containment, avoidance, or abatement.
  - The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.



# Myanmar's new EIA process



# EIA Process

- Selection and check of the EIA expert
- Scoping
  - Information disclosure and consultation
  - Scoping Report and EIA Terms of Reference
  - Revision/approval/conditions within 15 days
- EIA Investigation
- EIA Report
- EIA Review process

# EIA Investigation

- Consider all biological, physical, social, economic, health, cultural and visual components of the environment, together with all pertinent legal matters
- All project phases (pre-construction, construction, operation, decommissioning, closure, and post-closure)
- Technical analysis.



# EIA Investigation

- All feasible measures are taken to ensure that all Residual Impacts are within standards and are acceptable to the Ministry and interested and affected persons
- Analysis of alternatives – compare impacts, mitigation measures and residual impacts
- Use and comply with national and adopted international standards
- Public consultation and negotiation

EIA is a valuable tool to assist decision making on a local, regional and national level.

- EIA also encompasses Cumulative Impact Assessment
  - Cumulative assessment is important when the carrying capacity may be reached. For example, a hydropower dam proposed along a river may have acceptable impacts on fish and sediment-flow, however dams already being constructed or operating upstream may mean in the future unacceptable impacts on fisheries and sediments from that dam.
- EIA can consider Trans-boundary Impact Assessment

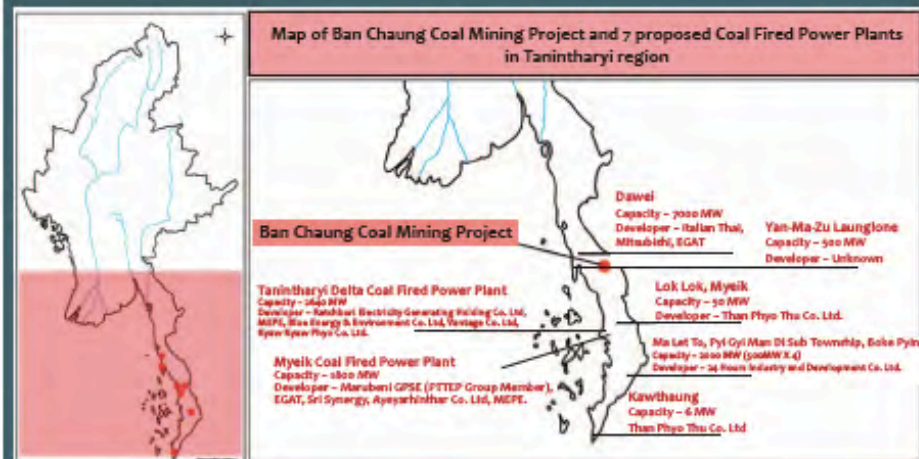
# “ We Used to Fear Bullets Now We Fear Bulldozers ”

Dirty coal mining by military cronies & Thai companies  
Ban Chaung, Dawei District, Myanmar



October 2015

## Map of Ban Chaung mining project





## Villages that will be impacted







Mining waste is simply dumped in large piles at Khon Chaung Gyi mining site



The Khon Chaung Kalay Stream (Thabalue Poe Klo ) flows downstream of the mining site



Coal fires burning at the storage piles in Amalar village

## This table shows how an EIA should develop a Risk Assessment Matrix:

Following this the EIA Report should then consider and apply mitigation measures as considered in the EMP and provide a revised risk assessment table.

			Severity of Consequence				
			1	2	3	4	5
			Catastrophic	Major	Moderate	Minor	Insignificant
Likelihood of Consequence	A	Almost Certain	Extreme	Extreme	Extreme	High	High
	B	Likely	Extreme	Extreme	High	High	Moderate
	C	Possible	Extreme	Extreme	High	Moderate	Low
	D	Unlikely	Extreme	High	Moderate	Low	Low
	E	Rare	High	High	Moderate	Low	Low



# Types of Mitigation form a hierarchy

- **Avoid** the impact by not taking action or parts of the action
- **Minimize** impacts by limiting the degree or magnitude of the action
- **Rectify** the impact by repairing, restoring, or rehabilitating the affected environment
- **Reduce or eliminate** the impact over time by preservation and maintenance operations.
- **Compensate** for the impacts by replacing or providing substitute resources or environments

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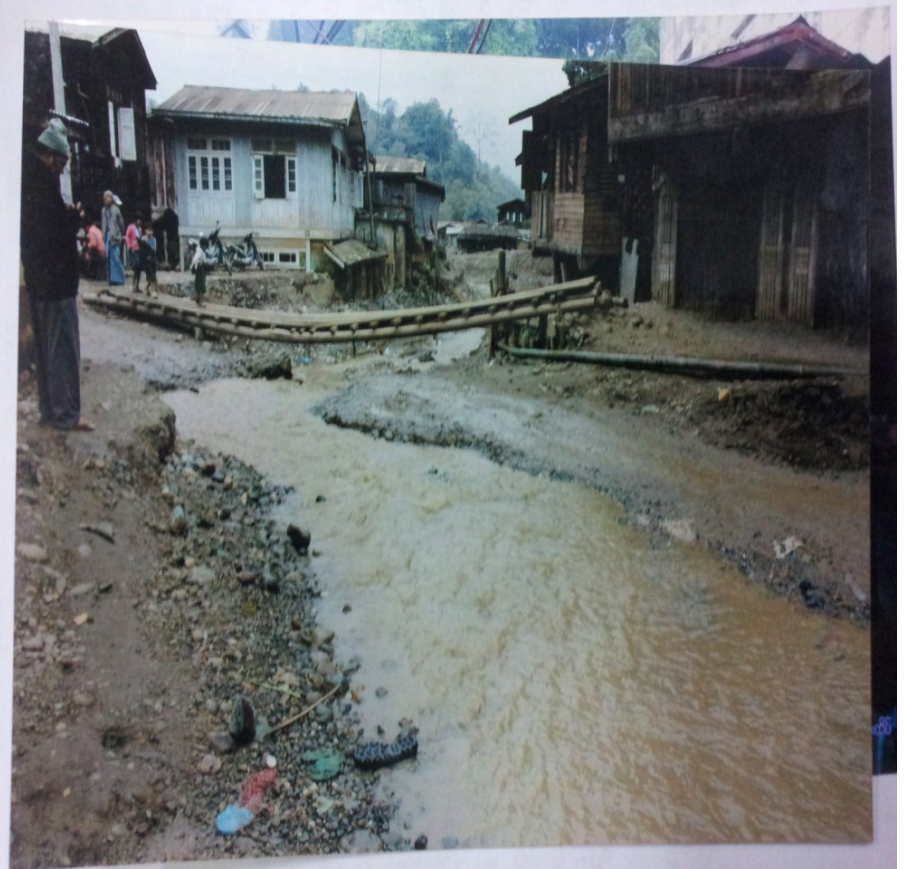


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# Environmental Management Plans

- Prepared as part of the EIA/IEE process
- Applies to all projects, including existing projects
- Should include community consultation
- Based on risk-assessment matrix
- Should use BAT or Good Practice
- Should indentify who, what, when, how and cost.
- Also must have reporting requirements and Emergency Management Plans.

# Environmental Compliance Certificates

- Site-specific and clearly state full project details
- Environmental Management Plans
- Conditions can include:
  - General management
  - Emissions and pollution control
  - Use of energy and natural resources
  - Transport and access
  - Decommissioning, rehabilitation and closure
  - Financial guarantees

# Operation/Monitoring/Compliance

PROJECT APPROVAL – Environmental Management Plan

Construction/Operation

Line Ministries/MOECA

OTHER  
PERMITTING  
PROCESSES

Monitoring  
Reporting

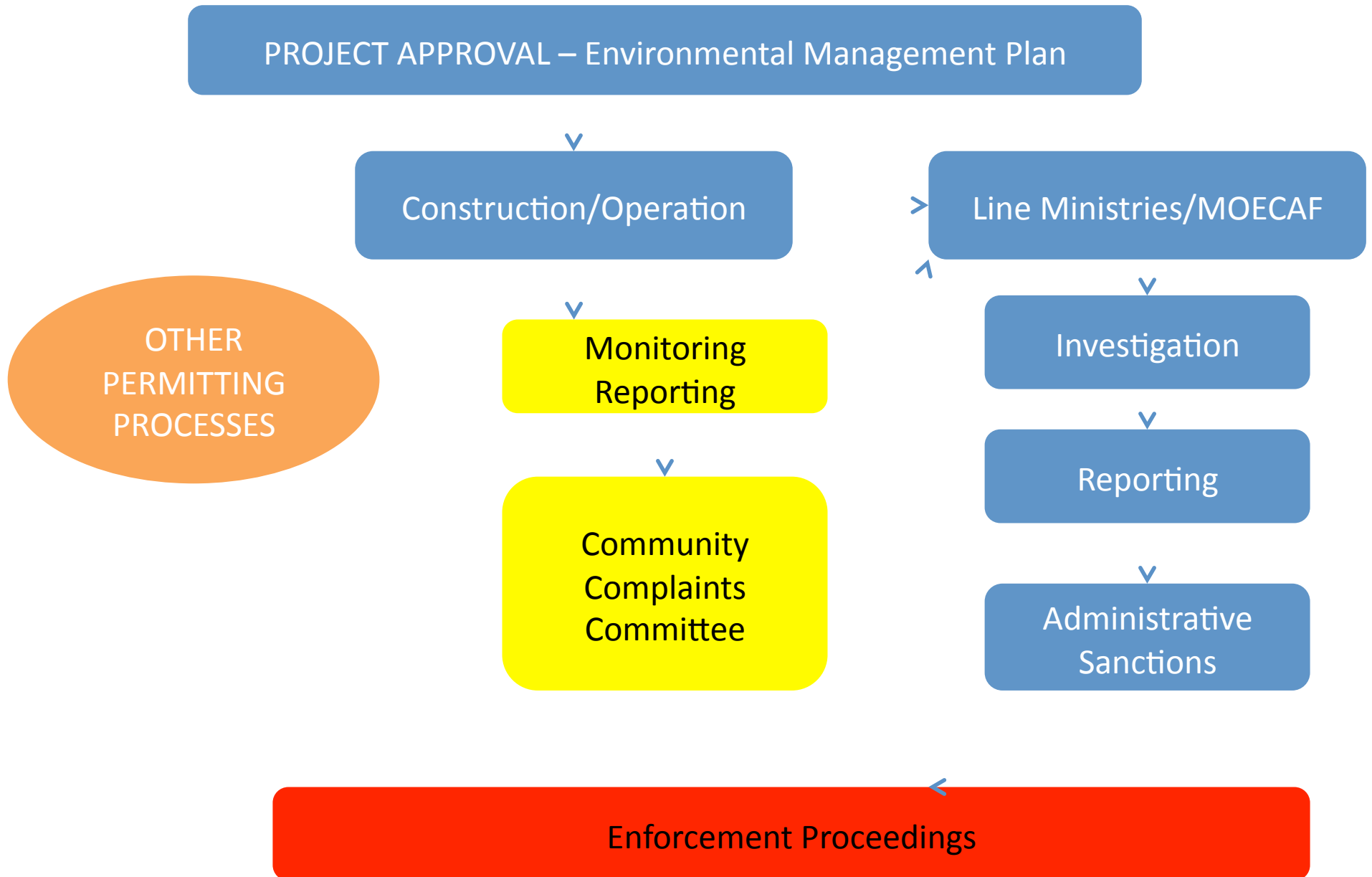
Investigation

Reporting

Community  
Complaints  
Committee

Administrative  
Sanctions

Enforcement Proceedings





# Mining in Kayah State





# Kayah











# EIA, Human Rights and Corporate Responsibility

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# Corporate Responsibility

- Is a voluntary form of corporate responsibility, developed alongside triple-bottom line reporting.
- It enable corporations to consider environmental, social and ethical considerations in decisions.
- **Principles of Responsible Investment (PRI)** is an initiative and a set of aspirational and voluntary guidelines for investment entities wishing to address environmental, social, and corporate governance (ESG) issues. Over 1000 companies representing over US\$32 trillion have signed up to the Principles. Launched in 2006 by the UN.

# UN Global Compact

- The UN Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:  
“ The Global Compact asks companies to embrace universal principles and to partner with the United Nations. It has grown to become a critical platform for the UN to engage effectively with enlightened global business.” – UN Secretary-General Ban Ki-moon

## Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.



# UN Global Compact

## Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

# UN Global Compact

## Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

# UN Global Compact

## Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.
- <http://www.unglobalcompact.org>

# Global Reporting Initiative

- The **Global Reporting Initiative (GRI)** is a non-profit organization that promotes economic, environmental and social sustainability. GRI provides all companies and organizations with a comprehensive sustainability reporting framework that is widely used around the world.
- [www.globalreporting.org](http://www.globalreporting.org)
- Global strategic alliances with OECD, UNEP.



# Equator Principles June 2006

- Guiding principles for the financial industry. A benchmark for determining, assessing and managing social and environmental risk in project financing. \$US10million of more.

## ***Principle 2: Social and Environmental Assessment***

- For each project assessed as being either Category A or Category B, the borrower has conducted a Social and Environmental Assessment (“Assessment”) process<sup>2</sup> to address, as appropriate and to the EPFI’s satisfaction, the relevant social and environmental impacts and risks of the proposed project (which may include, if relevant, the illustrative list of issues as found in Exhibit II). The Assessment should also propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project

# Equator Principles

- Category A – Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented;
- Category B – Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures
- Also have specific project guidelines.
- 2008 PRC SEPA agreed to promote Equator Principles

A Chinese version of *Environmental Policy on China's Overseas Investment* was published in July 2010

A Environmental Guideline on Chinese Overseas Investment has been adopted.

